



Spring 2015
Water and Storm Water
Pre-construction meeting

WELCOME!

City of Rockford
Public Works Department
Water and Storm Water Pre-Construction Meeting
March 20, 2015 9:00 a.m.
City Yards Conference Room

Agenda

1. Staff Introduction – Jamie Rott
2. Water Main Construction
 - a. Section 12 – Jamie Rott
 - b. Illinois EPA Water Construction Permit – Jamie Rott
 - c. Illinois EPA Water Operating Permit – Jamie Rott
 - b. Water System Shutdowns – Jamie Rott
 - c. Valve Operation – Greg Cassaro
 - d. Tapping of Live Water Mains – Greg Cassaro
 - e. Service Connections – Greg Cassaro
 - f. Inspection – Greg Cassaro
 - g. Disinfection – Nadine Miller
 - h. Sampling and Analysis – Nadine Miller
3. Hydrant Use Program: Jennifer Jackson
 - a. Permitting process
 - b. Meter rental
4. Development – Marcy Leach
 - a. Traffic Control
 - b. Lighting Concerns
5. Street Division – Mark Stockman
 - a. Street Signs/Signals
 - b. Tree Trimming/Removal Permits
6. Erosion and Sediment Control - Brad Holcomb

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Water Distribution System Design and Specifications (Section 12)



WATER DISTRIBUTION
SYSTEM DESIGN
AND
SPECIFICATIONS

*Current Version is
available online at City
Departments – Public
Works – Water – Water
Engineering

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Water Distribution System Design and Specifications (Section 12)

12.02 Pressure Connections

Pressure connections or wet tap connections will not be permitted if the existing main is the same size or smaller than the proposed main that is to tee into the existing.

12.5 Protection of Water Supplies

When it is impossible to accomplish the vertical separation required above, both the water main and the sewer must be constructed of water main materials and the sewer must be pressure tested for water tightness at the maximum expected surcharge head before backfilling. Wherever the water main is less than ten (10) feet from the sewer, a full twenty (20) foot length of water main pipe shall be centered at the point of sewer crossing. Rubber gasketed sewer will not be accepted as a water main quality material.

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Water Distribution System Design and Specifications (Section 12)

12.14 Fire Hydrants - Harrington Integral Hydrant Storz Nozzle

All fire hydrants, public and private, shall have a Harrington Integral Hydrant Storz nozzle installed on hydrants during assembly and shall meet or exceed the requirements of AWWA C502 regarding material and pressure testing.



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Water Distribution System Design and Specifications (Section 12)

Hydrants and Valve Boxes

- Fire Hydrants (12.14)
 - nozzles and caps shall be lubricated immediately before or after installation
- Valve Boxes (12.16)
 - shall be Tyler/Union cast iron 6850 series with a debris cap and with an Adapter

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Water Distribution System Design and Specifications (Section 12)

12.31 Polyethylene Encasement of Water Main


- Poly Wrap required on ALL Projects
- Water main, **services (ductile iron only)** valves, fittings, hydrant barrels, and appurtenances, shall be fully encased
- Film shall be furnished in tube form
- Installed on the pipe prior to being lowered into the trench
- Overlap at all joints of one foot or more
- Overlap shall be secured in place with plastic adhesive tape wrapped
- Slack in the tubing film shall be folded over at the top of the pipe held in place with plastic adhesive tape applied at intervals of approximately three (3) feet along the pipe



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Illinois EPA Water Construction Permit


Northwest Rockford
Resources
P.O. Box 10000
Rockford, WA 98567

PUBLIC WATER SUPPLY CONSTRUCTION PERMIT

SUBJECT: ROCKFORD (Waterbody Code: 100690)

Form 1 Revised for _____

PERMIT NUMBER: XXX-XX DATE ISSUED: Month XX, 2014
PERMIT TYPE: Water Main

The issuance of this permit is based on plans and specifications provided by the engineer/water district, indicated, and are identical to the plans. This permit is issued for the construction and the installation of the public water supply appurtenances described in the document in accordance with the provisions of the "Uniform Administrative Code", Title 17, Chapter 18 through 17 and Title 17, Chapter 17 and all rules and regulations that are subject to the conditions outlined in the first page of the permit and the ADDITIONAL CONDITIONS listed below.

TITLE:
NUMBER OF PLAN SHEETS:
TYPE OF PLAN:

PROPOSED IMPROVEMENTS:

Install approximately XXXXX' of 8" Water Main, "N" - "N" water service, X hydrants

ADDITIONAL CONDITIONS:

1. This project has been reviewed for conformance with the requirements of the State of Illinois' Environmental Protection Agency and has been tentatively found to be in compliance.
2. All water service shall be constructed/extended per the plans. In accordance with the requirements of ATWMA 253.9-6, at least one (1) inch shall be collected from every 1,200 feet of any water main, plus one (1) inch from the first and last one hundred feet from each block. Sanitary sewer lines shall be constructed in accordance with the requirements of 35 Ill. Adm. Code 622.0-8.
3. There are no special conditions in the permit.

Matthew Viner, P.E.
City Engineer
Department of Public Works

City of Rockford, Illinois USA
Lawrence J. Brondino, Mayor

612 East State Street, Rockford, Illinois 61104-1024 USA
(815) 397-3973 (815) 397-3100 FAX 815.397.4440
www.rockford.gov

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Illinois EPA Water Construction Permit

- 2 copies of the permit shall be submitted to the City Engineer
- New Development: A Subdivision Plat shall be approved prior to IEPA permit approval
 - Once the plat is approved, a copy of the plan shall be submitted to Engineering
- Prior to starting any water main construction the Contractor shall notify Engineering
- Prior to starting any water main construction the Public Water Supply Construction permit must be approved

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Illinois EPA Water Operating Permit

- The City of Rockford issues an Operating Permit once the water main has passed all tests and has been accepted by the Water Engineer.
- This permit is kept on file with the Public Works Department

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Illinois EPA Water Operating Permit

WATER MAIN OPERATING PERMIT
ROCKFORD, Winnebago County, ILLINOIS

1. Permit Number: _____ DATE ISSUED: _____

2. Title of Permit: _____

3. Design of governing Permit: _____

4. Contractor: _____

5. Project Completion Date: _____

6. Environmental and Usage Data: _____

7. Certified Operator/Engineer/Inspector in Charge: _____
Name: The Engineer Certified Operator/Engineer/Inspector: A

8. Owner of the Construction Project: City of Rockford
Address: _____ Street _____ City _____ State _____ Zip Code _____

Signature: _____ Date: _____
Title: Public Works Director

For this to be a valid permit, the City of Rockford must have received a copy of the permit from the Illinois EPA. The permit is valid only for the work completed under the Construction Permit of the same number.

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Water System Shutdowns

Water Main Shut Off

- Section 1.6 - Requirements for Scheduled Water Main Valve Shut Off
- Section 1.6.1 - Requirements for Unscheduled (Emergency) Water Main Valve Shut Off

This section can be found on the City website under City Departments – Public Works – Water – Water Engineering

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Water System Shutdowns

Section 1.6 - Requirements for Scheduled Water Main Valve Shut Off:

- Must obtain permission of the Water Superintendent, or his designee, prior to any water main valve shut off.
- Meet with Water Division personnel at least five (5) days prior to start of construction
- Coordinate exercising valves and determining valve shut off patterns during construction.
- The shut down shall be allowed to proceed only after the Water Division representative has determined that the required valves are functioning.

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Water System Shutdowns

Section 1.6 - Requirements for Scheduled Water Main Valve Shut Off (Cont.):

- Minimum 24 hour notification to all customers of boil order (tags)
- For larger businesses, schools, etc. coordinate shutdown in advance with Property Owner and Project Manager

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Water System Shutdowns

Section 1.6 - Requirements for Scheduled Water Main Valve Shut Off (Cont.):

- Notify the Water Division Operations Center (**779-348-7368**) prior to water main valve shut off and provide the following:
 - Streets and boundaries of shut down
 - Time of shut down
 - Approximate duration of shut down
 - Number of customers affected
 - If non-residential customers (hospitals, nursing homes, restaurants, etc.) are affected, a count of how many individuals affected.
- Notify Water Division Operations Center Operator upon completion of repairs and restoration of water service.

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Water System Shutdowns

Section 1.61 - Requirements for Unscheduled Water Main Valve Shut Off:

- In the event the Contractor must perform an unscheduled water main valve shut off; the Contractor shall notify the Water Division Operations Center Operator **(779-348-7368)** as soon as possible.

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Water System Shutdowns

Section 1.61 - Requirements for Unscheduled Water Main Valve Shut Off (cont.):

- Notify Water Division Operations Center **(779-348-7368)** A.S.A.P.
- Notify all customers of boil order (tags)
- Provide the following:
 - Streets and boundaries of shut down
 - Time of shut down
 - Approximate duration of shut down
 - Number of customers affected
 - If non-residential customers (hospitals, restaurants, etc.) a count of how many individuals affected.
- Notify Water Division Operations Center Operator upon completion of repairs and restoration of water service.

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Valve Operation

- All valves inside the scope of work, shall be exercised and a condition assessment made by City of Rockford Distribution staff.
- If any line stops are used, a fall back valve on both sides of the line stop will be identified and the above criteria shall apply.
- In the event of a line stop failure, the fall back valves will be used and all unforeseen shutdown provisions will apply.
- The primary contact for Water Distribution will be Greg Cassaro (779) 537-3219.
- All Hi-Lo Valves are marked with a special manhole cover, and all operation of these valves shall be by City of Rockford staff **ONLY!**

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HI-LOW Valve Manhole Covers

"HEAVY"



"LIGHT"



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Tapping of Live Water Mains

- All taps performed on live water mains, must be completed by an Illinois licensed plumber and inspected by the City of Rockford Building Department.
- Anyone performing a live tap must notify Engineering

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Service Connections

- Service taps are to be made only by the City of Rockford or upon approval from the Water Division for a licensed contract plumber to perform
- A crimping tool shall not be used to temporarily stop a water service
- Freezing of a service is the approved method of use for the City of Rockford
- All services boxes shall be placed at the property line

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Horizontal Directional Boring

- Installation shall be accomplished where required on the plans or in the Special Conditions
- Contractor responsible for repairs where underground pressure may cause heaving or damage to pavement and ground surfaces
- Contractor must submit boring/drilling pit locations to the Engineer for approval prior to beginning construction
- Installation shall be by a steerable drilling tool capable of installing continuous runs of pipe without intermediate pits
- Disposal of excess fluid and spoils shall be the responsibility of the Contractor

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Water Main Inspection

- All requests will be coordinated by the project manager.
- All inspections will be performed by the City of Rockford or their designee.
- All Illinois EPA and Plumbing regulations shall apply for inspection purposes.
- All requests for inspections shall be no less than 24 hour advance notice.
- All Components needing inspections shall remain exposed until inspection is complete.

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Disinfection

American Water Works Association (AWWA)

- **C651 – Water Main Disinfection**
 - B300 – Standard for Hypochlorite
 - B301 – Standard for Liquid Chlorine

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Disinfection

- Administrative Code Title 35; Section 602
- Administrative Code Title 35; Section 652
- City of Rockford Chapter II; Section 12
- Standard Specifications for Water & Sewer Main Construction in Illinois

***Make sure the hydrant is sufficiently flushed to
one ppm free chlorine before submitting your
BacT sample***

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Bacteriological Sampling and Analysis

The City of Rockford will perform **ALL** BacT analysis for City of Rockford construction projects.

- Sampling Requirements
 - water main repair (no permit): 1 BacT sample - P&A (presence& absence method)
 - upsizing or relocation of main (needing a permit): 1 BacT sample - MF (membrane filtration method)
 - new construction (not routine & needing a permit): 1 BacT sample - MF ((membrane filtration method)

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Rockford Water Division Environmental Laboratory

- Location : 1111 Cedar Street
- Hours of Operation: 8:00 am – 2:00 pm, Monday – Thursday
- Bacteriological Analysis Pricing
 - Membrane filtration: \$18.00
 - Presence & Absence: \$13.00

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- Samples will be submitted in laboratory approved containers that are available at 1111 Cedar Street
- Samples will not be accepted without properly completed paperwork

[illegible]

Form **MUST** include total or residual chlorine at the time sample is collected

Hydrant Permits & Hydrant Meter Requests

Initial requests can be made:

On line <http://www.rockfordil.gov/>

OR

By Phone (779) 348 -7152

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What do we need?

- **Information needed for Permit:**

- Contractor name, address, phone number
- Hydrant Location- you are requesting
- Project Name
- Project Location
- Project Purpose
- Dates the hydrant is needed

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Approval

- All requests for hydrant use must be approved by **Water Engineer** and **Water Quality Supervisor**
 - *** before you can pick up your meter and permits.***
- **Please Allow 24 Hours to process requests**

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Approval

The **Engineering** and **Water Quality Department** reviews your choice for the hydrant location request for the following:

- The meter size
- How long it will be used
- How it will affect the water main
- How it will affect possible traffic flow when filling a water tanker truck



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PAYING FOR YOUR METER

Payment and Pick-up:

- Make your payment at **City Hall 425 E. State St.**
- When approval is made- we will contact you by phone for meter pick-up
- Bring your receipt to **Water Operations** building located at **1111 Cedar St.**

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What will it cost ?

Costs: \$600.00 – 1 inch Meter

\$1000.00 – 2 inch Meter

- \$10.00 per month Hydrant use permit fee
- Water is billed \$4.93 per 100 cubic ft.
- Damage to meters is deducted from deposit

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Bringing it Back

• RETURNING YOUR METER:

Bring To-

- Water Operations building located at **1111 Cedar Street**

WE will

- Read the meter
- Document your contract with the meter read
- Check for any damages to the meter
- Give you a signed copy as your receipt
- **ALL CONTRACTS EXPIRE 12-31-15 -YOU MUST RETURN YOUR METER AND UPDATE YOUR FORMS FOR THE 2016 SEASON**

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TIPS FOR PROPER USE

Do

- Open/Close Hydrant slowly
- Use hydrant wrench provided
- Keep a copy of permit on-site
- Brace bottom of meter
- Store in warm place to avoid freezing
- Please report any problems to the Water division

Do not

- Leave meter unattended
- Move to a different hydrant- or use unless approved



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ILLEGAL USE OF HYDRANT

Using a hydrant without authorization from the City of Rockford Engineer or Water Quality Dept. could result in a fine.

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Permits and Hydrants

QUESTIONS ?



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Development

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Street Division

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Erosion and Sediment Control

- NPDES Municipal Separate Storm Sewer System (MS4) Stormwater permits requires municipalities to implement an erosion and sediment control inspection and enforcement program.
- All projects within City of Rockford limits must comply with the City's Subdivision review process as well as the Public Works Department - Engineering Division's Plat and Plan Review Process. Construction shall not begin until the City has completed it's review process and has issued approvals.
 - For City projects, SWPPP's and erosion control plans must be reviewed by the Stormwater & Environmental Team
- All projects requiring an IEPA General Construction Permit (ILR10) must submit the Notice of Intent (NOI) and SWPPP with the IEPA a minimum of 30 days prior to starting construction. A fee is required along with the submittal. **The City will not permit a project until it has been approved by IEPA.**
 - All City projects requiring a IEPA construction permit shall submit the NOI through the City's construction login page.
 - IEPA will not approve the permit without the SWPPP being electronically submitted.
 - City projects will also receive regulatory inspections and be inspected with same frequencies as private projects.
- **City must be notified a minimum of 48 hours before grading to perform a pre-grading inspection.**

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Erosion and Sediment Control

Inspections

- Unless requested all inspections are surprise visits. Appointments are not made.
- **If work does not commence within 2 weeks of the start date on the Grading and Stormwater Discharge Application the permit is no longer valid until the City is informed of the new start date. Permit is valid for 2 years.**
- The City will inspect any size construction site regardless of IEPA permitting requirements.
- Inspection Types:
 - **Pre-Grading Inspection:** BMP's must be installed **prior** to the start of construction except in areas where clearing and grubbing is necessary for installation.
 - **Drive Through Inspections:** A visual observation assessing site conditions and BMP's installations.
 - **Full Erosion and Sediment Control Inspection:** Complete review of SWPPP, inspection records, ESC plan and site conditions.



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Erosion and Sediment Control

- **WE EXPECT FULL COMPLIANCE AT THE TIME OF THE VISIT!**
- Compliance does not start when the regulatory inspector shows up.
- ***Follow the erosion control plan and the BMP's that were specified!***
- ***Remove all BMP's when the project is completed!***



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Erosion and Sediment Control

Discharge Point?

- Is the outlet stabilized?
- Are there indications of offsite discharges?
 - Sediment deposits
 - Sediment laden water
 - Downstream erosion
- See Title 35 of the Illinois Pollution Control Board,
 - Offensive Conditions (Part 302.203)
 - Offensive Discharges (Part 304.106)



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Erosion and Sediment Control

Best Management Practices

Inlet Protection

- Do all inlets that received water from disturbed areas have protection?
- Are there affected inlets without protection?
- Is the inlet protection being maintained?



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Erosion and Sediment Control

Best Management Practices

Perimeter Protection

- Is perimeter protection in place and functional
- Is it being maintained?
- Was it installed prior to the start of grading?



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Erosion and Sediment Control

Best Management Practices

Stabilized Construction Entrances

- Are they installed
 - Are they being used
- Are they installed properly
 - Properly sized stone
 - Fabric installed underneath
 - Proper size



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Erosion and Sediment Control

Best Management Practices

Street Sweeping

- Installing the stabilized construction entrance as specified can significantly reduce sweeping costs.
- If too much sediment is entering the street you need to determine why.



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Erosion and Sediment Control

Best Management Practices

Stabilization

- Are areas not under construction stabilized?
- Is there adequate mulch cover until germination?



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Erosion and Sediment Control

Best Management Practices

Concrete Washouts

- Are washouts in place and being maintained?
- Are there any inlets near the washout?
- Improper concrete waste disposal is a violation of City codes as well as a federal clean water act violation.



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Erosion and Sediment Control

Best Management Practices

Other potential storm water contaminants

- Poorly maintained/leaky equipment
- Port-A-John location
- Fuel can/tank placement
- Trash & Debris



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Erosion and Sediment Control

Terminating Permits

Where a site has completed final stabilization and all authorized stormwater discharges from construction activities are eliminated the permittee **MUST** submit a completed notice of termination.

- Final Stabilization All soil disturbing activities have been completed and:
 - A uniform perennial vegetative cover with a density of 70% for the area has been established on all unpaved areas.
- or
- Equivalent permanent stabilization measures (riprap, gabions, or geotextiles) have been employed.



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Development Inspections Sites & Subdivisions

- All projects shall have a Development Permit and Grading Permit prior to starting construction
- If work does not commence within 2 weeks of the listed start date on the Grading Permit then the permit is no longer valid until the City of Rockford is informed of the new start date. Permit is valid for two (2) years from date construction commences. Projects that extend beyond 2 years a new permit application and fee shall be submitted.

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Development Inspections Sites & Subdivisions

- Prior to starting Grading work contact
Brad Holcomb (815)967-7061
- Prior to starting Water work contact
Jamie Rott (815)967-6742
- Prior to starting all other construction work contact
Jason Irvin (815)721-1419
- Right-of-Way Questions or Concerns contact
Warren Stahl (815)967-6945
- General Number (815) 987-5570

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Questions?